Form 3160-3 (July 1992)	DEDIDTMEN			SUBMIT IN TRIPLICATE (Other instructions on reverse side)			E• FORM APPROVED OMB NO. 1004-0136 Expires: February 28, 1995			
	DEPARTMENT OF THE INT BUREAU OF LAND MANAGEN		ALME!	I-Cons. I)ivisio	n [5. LEASE DESIGNATION AND BERIAL NO. NM-2379			
APPL	ICATION FOR P	ERMIT TO	统论	L'OR'DE	PEN		6. IF INDIAN, ALLO	TTER OR TRIBE NAM		
1a. TYPE OF WORK	RILL 🛛	HO DEEPEN	DDS,	NIVI 882	:40		7. UNIT AGREEMEN	T NAME		
D. TIPE OF WELL	GAS				MULTIP:		8. FARM OR LEASE NAME			
2. NAME OF OPERATOR	WELL OTHER		2(ZONE	<u>-</u>	COVINGTON "A			
POGO PRODUCI	ING COMPANY	(RICHARD W	RIGHT	915-685-	·8140)	-	9. API WELL NO.			
3. ADDRESS AND TELEPHONE NO							30-02=	<u>5-3627</u>		
$\frac{P.O. BOX 10}{4. LOCATION OF WELL ($	340 MIDLAND, TEXA Report location clearly and	AS 79702-73	40 (<u>915-685-8</u>	(100)		10. FIELD AND POO RED TANK-BON			
At surface	2620' FWL SEC. 2		•	-		-	11. SEC., T., B., M.,	OR BLE.		
At proposed prod. zo		9 1223-RJ2	دد ا	A CO. MI			AND BURVEY OF			
	C			• • • • · · · · · · · · · · · · · · · ·			SECTION 25	T22S-R32E		
Approximatel	AND DIRECTION FROM NEA .y 30 miles East			-			12. COUNTY OF PAR LEA CO.	ISR 13. BTATE NEW MEXI		
	ST LINE, FT.] lg. unit line, if any)	.170'		960	LEASE		ACRES ASSIGNED IS WELL	40		
	DRILLING, COMPLETED.	990'		OPOSED DEPTH			Y OR CABLE TOULS			
OR APPLIED FOR, ON T. 21. ELEVATIONS (Show W	HIS LEASE, FT. hether DF. RT, GR. etc.)			9200'		ROTA	RY 22. AL'PROX. DATE WORK WILL START			
		3758' GR.					WHEN APPRO			
23. Rodeland Con	treffed Water Besin	PROPOSED CASI	NG AND	CEMENTING	PROGRAM	·				
SIZE OF ROLE	GRADE SIZE OF CASING	WEIGHT PER F	,	SETTING DI			QUANTITY OF CE			
25"	Conductor 20"	NA		40		Cement	to surface v			
17½"	H-40 13 3/8	48		1000'			. circulate			
11"	HCK-55,J-55 8 5	/8'' 32		4700 '		1800 Sx	. 11	11 17		
7 7/8"	N-80, J-55 5 ¹ / ₂ "	17		9200 '		1450 Sx	TwO Stage 1	OC EST.370		
1. Drill 25" h	ole to 40". Set 4	40' of 20" c	onduc	tor and c	ement	to surfa	ace with Redi	-mix.		
800 Sx. of	hole to 1000'. Ru Class "C" 35:65:6 CaCl Mix @ 14.8	5 POZ/GEL Mi	x@1	12.4 # PPG	, tail	in with				
32# HCK-55 35:65:6 POZ	tole to 4700'. Run ST&C, 4200' of 8 C/GEL + 5% Salt M PPG, circulate of	5/8" 32# J- Lx @ 12.8#/P	55 SI PG, t	C&C. Cemen ail in wi	t with	1600 Sx	c of Class "C	" LITE		
MIX @ 14.0#	rro, crearacy (
4. Drill 7 7/8 N-80 LT&C, with DV Too water & Wat	" hole to 9200'. 6000' of 5½" 17# 1 at 6000'±. Ceme er Loss Control, PPS Gilsonite, N	J-55 LT&C, ent lst stag Mix @ 15.7	1000' e wit PPG,	of 5½" 1 th 650 Sx. cement 2n	7# N-80 of Cla d stage) LT&C. 188 "H" 2 with 8	Cement in 2 cement + wit 300 Sx. of Cl	Stages h free/ ass/"C"		
4. Drill 7 7/8 N-80 LT&C, with DV Too water & Wat cement + 12 ABOVE SPACE DESCRIE repen directionally, give part	" hole to 9200'. 6000' of 5½" 17# 1 at 6000'±. Ceme er Loss Control,	J-55 LT&C, ent 1st stag Mix @ 15.7 fix at 14.09 proposalis to deepen, g	1000' e wit PPG, PPG.	of 5½" 1 h 650 Sx. cement 2n Estimate on present produc	7# N-80 of Cla d stage top of) LT&C. ass "H" with 8 cement	Cement in 2 cement + wit 300 Sx. of Cl 3700' from ew productive zone. 1	Stages h free/ ass "C" surface.		
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Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of \overline{t} . United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.



APPLICATION TO DRILL

POGO PRODUCING COMPANY COVINGTON "A" FEDERAL # 45 UNIT "C" SECTION 25 T22S-R32E LEA CO. NM

In response to questions asked under Section II of Bulletin NTL-6 the following information on the above well is provided for your consideration.

- 1. Location: 1170' FNL & 2620' FWL SEC. 25 T22S-R32E LEA CO. NM
- 2. Elevation above Sea Level: 3758' GR.
- 3. Geologic name of surface formation: Quaternery Aeolian Deposits.
- 4. Drilling tools and associated equipment: Conventional rotary drilling rig using drilling mud as a circulating medium for solids removal from hole.
- 5. Proposed drilling depth: 9200'
- 6. Estimated tops of geological markers:

Rustler Anhydrite	905'	Cherry Canyon	5760 '
Basal Anhydrite	4630 '	Brushy Canyon	7020'
Delawqre Lime	4910 '	Bone Spring	8730 '
Bell Canyon	4920 '	Upper Bone Spring Sd.	8850 '

- 7. Possible mineral bearing formations: Brushy Canyon Oil 0i1 Bone Spring 0i1 Bone Spring Sand
- 8. Casing program:

r. .

Hole size	Interval	OD of casing	Weight	Thread	Collar	Grade
25"	0-40	20''	NA	NA	NA	Conductor
17½''	0-1000'	13 3/8"	48	8-R	ST&C	H-40
11"	0-4700'	8 5/8"	32	8-R	ST&C	HCK-55 J-55
7 7/8"	0-9200'	5½"	17	8-R	LT&C	N-80 J-55

APPLICATION TO DRILL

POGO PRODUCING COMPANY COVINGTON "A" FEDERAL # 45 UNIT "C" SECTION 25 T22S-R32E LEA CO. NM

9. CASING CEMENTING & SETTING DEPTH:

A. . .

20"	Conductor	Set	40'	of	20"	conductor	and	cement	to	surface	with
		Redi	L-mi:	κ.							

- Set 1000' of 13 3/8" 48# H-40 ST&C casing. Cement with 13 3/8" Surface 800 Sx. of Class "C" Litecement + additives, tail in 200 Sx. of Class "C" + 2% CaCl mix at 14.8 PPG, circulate cenent to surface.
- Set 500' of 8 5/8" 32# HC K-55 ST&C follow with 4200' of 8 5/8" Intermediate 8 5/8" 32# J-55 ST&C casing. Cement with 1600 Sx. of Class "C" Lite 35:65:6 POZ + additives, tail in with 200 Sx. of Class "C" cement + 2% CaCl, circulate to surface.
- Set 9200' of 5½" casing as follows: 2200' of 5½" 17# N-80 5'5" Production LT&C, 6000' of 51/2" 17# J-55 LT&C, 1000' of 51/2" 17# N-80 LT&C casing. Cement in 2 stages with DV tool at 6000'±. Cement 1st stage with 650 Sx. of Class "H" + additives mix at 15.7PPG cement 2nd stage with 800 Sx. of Class "C" cement with 12 PPS Gilsonite, mix at 14.8 PPG estimate top of cement 3700' from surface.
- 10. PRESSURE CONTROL EQUIPMENT: Exhibit "E" shows a 900 Series 3000 PSI working pressure B.O.P. consisting of an annular bag type preventor, middle blind rams and bottom pipe rams. The B.O.P. will be nippled up on the 13 3/8" casing and tested to API specifications. The B.O.P. will be operated at least once in each 24 hour period and the blind rams will be operated when drill pipe is out of hole on trips. Full opening stabbing valve and upper kelly cock will be utilized. Exhibit "E-1" shows a hydraulically operated closing unit and a 2"3000 PSI choke manifold with dual adjustable chokes. No abnormal pressures or temperatures are expected.
- 11. PROPOSED MUD CIRCULATING SYSTEM: on 3m & larger VISC. FLUID LOSS TYPE MUD SYSTEM DEPTH MUD WT. Fresh water Spud Mud add 8.4-8.7 29-36 NC 40-1000' paper to control seepage. Brine water add paper to 1000-4700' 10.1-10.3 29-38 NC control seepage and use high viscosity sweeps to clean hole. NC Fresh water using high 8.4-8.7 29-38 4700-8600' viscosity sweeps to clean hole. 10 cc or Same as above but adding 8.4-8.7 36-38 8600-9200 a Polymer to control water Less loss.

Sufficient mud materials will be kept on location at all times in order to combat lost circulation, or unexpected kicks. In order to run DST's , open hole logs, and casing viscosity and/or water loss may have to be adjusted to meet these needs.

3" Choke line & values

APPLICATION TO DRILL

POGO PRODUCING COMPANY COVINGTON "A" FEDERAL # 45 UNIT "C" SECTION 25 T22S-R32E LEA CO. NM

12. LOGGING, CORING, TESTING: PROGRAM:

- A. Open hole logs: Run Dual Induction, SNP, LDT, Gamma Ray, Caliper from TD back to 4700' Casing shoe. Cased hole logs: Run gamma Ray, Neutron from 4700' Casing shoe back to surface.
- B. Rig up mud logger on hole at 6000'±.
- C. No DST's or cores are planned at this time.

13. POTENTIAL HAZARDS:

No abnormal pressures or temperatures are expected. Hydrogen Sulfide gas may be encountered, H_2S detectors will be in place to detect any presence of unsafe levels of H_2S . No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operations of all equipment that will be used. Estimated BHP <u>4600</u> PSI & estimated BHT <u>178°</u>.

14. ANTICIPATED STARTING DATE AND DURATION OF OPERATION:

Roads and location construction will begin after the BLM approves the APD. Anticipated spud date will be as soon as pad & road construction has been completed. Drilling time for the well is estimated to take <u>28</u> days. If production casing is run an additional <u>30</u> days will be required to complete well and construct surface facilities.

15. OTHER FACETS OF OPERATION:

After running production casing, cased hole Gamma-Neutron & Collar logs will be run over all possible pay intervals. If commercial production from the <u>Bone Spring</u> pay is indicated it will be perforated and stimulated. Then if necessary the pay will be swab tested and completed as an oil well.

120



ARRANGEMENT SRRA

900 Series 3000 PSI WP

X. + + •

EXHIBIT "E" SKETCH OF B.O.P. TO BE USED ON POGO PRODUCING COMPANY COVINGTON "A" FEDERAL # 45 UNIT "C" SECTION 25

LEA CO. NM

T22S-R32E